



TEGRA LINUX DRIVER PACKAGE R28.2 DEVELOPER PREVIEW

RN_05071-R28 | December 5, 2017
Advance Information | Subject to Change

Release Notes



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1.0 About this Release

The NVIDIA® Tegra® Linux Driver Package 28.2 Developer Preview release supports development of platforms running on:

- NVIDIA® Jetson™ TX2 Developer Kit (P2771-0000)

Support of Jetson TX2, with aligned API and Linux kernel versions, is scheduled to be provided in the production release of JetPack 3.2.

Warning

This pre-release is provided for evaluation purposes.
It is NOT supported for use in production environments.

Platform and Release Information

Description	Supported Version
Host machine version for flashing software onto Jetson TX2.	Ubuntu 16.04 (arm64 distribution)
Sample rootfs Ubuntu operating system to run on Jetson TX2.	Ubuntu 16.04 (arm64 distribution)
Supported Linux kernel version.	4.4.38
Supported ARM architecture.	aarch64
The board name, used in flashing and paths in the software.	Jetson TX2: jetson-tx2
The board and revision number.	Jetson TX2: p2771-0000
The release tag name. Consult the kernel source to identify the tag name at: http://nv-tegra.nvidia.com/gitweb/?p=linux-4.4.git Kernel source are live across several repositories.	tegra-l4t-r28.2-rc

Consult the topic Kernel Customization > Obtaining the Kernel Sources with Git in the <i>Development Guide</i> for details.	
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1.1 Login Credentials

The default login credentials are:

- ▶ Username: `nvidia`
- ▶ Password: `nvidia`

Note:

For security purposes and for best practices, NVIDIA recommends changing the default password.

1.2 Top Issues Fixed Since Last Release

These fixed issues apply to Jetson TX1 and Jetson TX2 devices unless otherwise specified.

1.2.1 Audio

Audio related issues resolved in this release are as follows.

Issue	Description
1788838	When the Tegra I2S interface is configured for TDM operation using DSP-A or DSP-B formatting, the frame-sync that is generated to indicate the start of the audio data frame is inverted. This is a software configuration issue in the Tegra I2S driver which is incorrectly programming the LRCK_POLARITY field of the I2S Control Register.
2004753	When playing or capturing 32-bit audio on Jetson TX1, the Tegra sound driver incorrectly overrides the data format for the PCM audio samples which forces playback or capture to be 16-bit instead of 32-bit.
2021397	Previously, when using the Tegra X1 I2S3 interface for audio playback or capture, the interface is not enabled. Consequently, audio playback and capture may fail. This issue is fixed in this release so that audio playback and capture now works on the I2S3 interface.
2020869	The audio route for the Tegra TX1 I2S5 interface was not defined in the Linux kernel device-tree. Consequently, it could not be used even though it was available on the Tegra TX1 module. However, now the audio route for I2S5 is added and can be used.

1.2.2 Camera

Camera related issues resolved in this release are as follows.

Issue	Description
200316681	<p>Performance degradations, if there is an aspect ratio mismatch between the requested output resolution and the sensor mode resolution, have been resolved.</p> <p>For best results, the output resolution requested by the argus_camera application must match, as close as possible, the aspect ratio of the sensor mode. If there is a mismatch, low performance issues may result such not getting the desired frame rate due to frame drops for preview and video encode usecases with argus_camera.</p> <p>For example:</p> <p>sensor mode: 3864x2174, aspect ratio 1.77737 output resolution 3840x2160, aspect ratio 1.77777</p> <p>Low performance:</p> <pre>./argus_camera -i --kpi --sensormode=0 --outputsize=3840x2160 --videoformat=h264 - -videobitrate=20000000 --framerate=30 --outputpath=/dev/null -v3600 -x</pre> <p>Good performance:</p> <pre>./argus_camera -i --kpi --sensormode=0 --outputsize=3864x2174 --videoformat=h264 - -videobitrate=20000000 --framerate=30 --outputpath=/dev/null -v3600 -x</pre>
1851861	<p>IMX185 WDR: AE has large noticeable steps during transition.</p> <p>Fixed ratio (16.0) of long/short exposure results in higher exposure steps available for long exposure may result in noticeable AE steps during transition; specially in High Dynamic Range scenes.</p>
200310602	<p>Sometimes a timeout occurs when launching the camera.</p> <p>If the camera is opened or closed in a loop, a crash may be observed after ~100 iterations. The system log shows the following error:</p> <pre>[35691.253438] host1x 50000000.host1x: nvhost_get_syncpt: failed to find free syncpt.</pre>

1.2.3 Clock Frequency

Clock related issues noted in this release are as follows.

Issue	Description
2020021	<p>Previously, the Tegra X1 clock driver in the Linux kernel was incorrectly limiting the maximum frequency for the I2S interfaces to 24 MHz. This issue is now resolved so that the I2S interface now supports a maximum frequency of 24.576 MHz.</p>

1.2.4 Communication

Communication related issues resolved in this release are as follows.

Issue	Description
200322448 200322528	<p>If WiFi is enabled, the device fails to enter SC7 suspend using “echo mem”.</p> <p>To workaround:</p> <ul style="list-style-type: none"> Execute the command. sudo systemctl suspend <p>A ten second delay occurs while unregistering the P2P interface. However, suspend/resume will work as expected.</p>
200273576	UDP downlink performance of the integrated Ethernet controller may be reduced when display is enabled.

1.2.5 CUDA

NVIDIA® CUDA® related issues resolved in this release are as follows.

Issue	Description
200303394	While using the autostep feature of CUDA Debugger (cuda-gdb) on Jetson TX2, the autostep can intermittently miss a MMU FAULT (e.g NULL pointer dereference) and does not report it. This leads to a hang of cuda-gdb.

1.2.6 JetPack

JetPack related issues resolved in this release are as follows.

Issue	Description
200330397	<p>While installing with JetPack installer, an out of space message may occur. Jetpack installation requires 12 GB of free disk space.</p> <p>To workaround:</p> <ol style="list-style-type: none"> Ensure the required disk space is available. Restart the JetPack installer.

1.2.7 Kernel

Kernel related issues resolved in this release are as follows.

Issue	Description
200276225	<p>After flashing the device using Ubuntu 16.04 on the host machine and rebooting, unable to install software applications from the Ubuntu Application Center.</p> <p>To workaround: Change the group ownership from lighdm to messagebus for the following file: /usr/lib/dbus-1.0/dbus-daemon-launch-helper</p> <p>The commands are as follows: \$ ls -l /usr/lib/dbus-1.0/dbus-daemon-launch-helper -rwsr-xr-- 1 root lightdm 38824 Jul 12 18:17 /usr/lib/dbus-1.0/dbus-daemon-launch-helper</p> <p>sudo chown root:messagebus /usr/lib/dbus-1.0/dbus-daemon-launch-helper sudo chmod 4754 /usr/lib/dbus-1.0/dbus-daemon-launch-helper</p> <p>Note: NVIDIA supports Ubuntu 14.04 as the host operating system.</p>
2003470	<p>The GPU EDP computes a voltage-frequency table used to calculate the maximum permitted frequency for a given power limit. A case has been identified where the computed voltage-frequency table may allow the GPU to operate at a frequency that is too fast for a given power limit.</p>
200275736	<p>If suspend/resume operations occur during video playback, video playback may not resume properly.</p> <p>This occurs if pulseaudio is installed and running. Pulseaudio is installed as part of the ubuntu-desktop package.</p> <p>To verify that the problem is caused by pulseaudio, run the following command after resuming from suspend to allow audio/video playback to continue: \$ /usr/bin/pasuspender /bin/true</p> <p>If pulseaudio is not required, then workaround by uninstalling or disabling pulseaudio.</p> <p>To disable pulseaudio execute the following commands: \$ mkdir ~/.pulse \$ echo autospawn=no > ~/.pulse/client.conf \$ pulseaudio -k</p> <p>To re-enable pulseaudio, delete the ~/.pulse/client.conf file.</p> <p>Note: pulseaudio is used by various applications. For example, pulseaudio is used by the ubuntu-desktop GUI for controlling audio (eg. volume control) and for audio mixing to allow the overlaying of audio from more than one application. Consequently, disabling pulseaudio may prevent these various applications from operating as expected.</p>

1.2.8 Multimedia

Multimedia related issues resolved in this release are as follows.

Issue	Description
200329420	VP9 hardware-accelerated decode is not supported on Jetson TX1, and if requested using GStreamer hardware-accelerated decode plugins results in continuous error messages to the console and GStreamer multimedia pipeline failure. Use software-accelerated GStreamer plugins for VP9.

1.2.9 General System Usability

General system usability related issues noted in this release are as follows.

Issue	Description
1877926	<p>When users operate a system between 5.5V - 5.75V, it is recommended to disable OC1 to prevent over-current throttling.</p> <p>To disable OC1</p> <ul style="list-style-type: none"> Remove the properties that define SOCTHERM_THROT_VEC_OC1 and SOCTHERM_EDP_OC1 from the device. <p>These properties can be found under the /soctherm/throttlectl and /soctherm/edp_oc nodes.</p> <p>For example, in the device tree, these properties may appear as follows:</p> <pre>throttlectl_oc1 = <SOCTHERM_THROT_VEC_OC1 7 7 100>; oc_1 = <SOCTHERM_EDP_OC1 1 SOCTHERM_EDP_OC_MODE_BRIEF 2 3 0 0xffffffff></pre> <p>....</p> <p>In this example, throttlectl_oc1 and oc1 properties must be completely removed. These are the properties that define SOCTHERM_THROT_VEC_OC1 and SOCTHERM_EDP_OC1 behavior.</p>
200322307	<p>NVIDIA NSight does not provide an option to compile for SM 6.2 GPU architecture implemented on Jetson TX2.</p> <p>To workaround:</p> <ol style="list-style-type: none"> Use the Expert setting to add the following option to both NVCC compiler and Linker. <pre>-gencode arch=compute_62,code=sm_62</pre> In the NVCC Compiler, navigate to Properties -> Settings -> Tool Settings -> NVCC Compiler -> Expert Setting: <pre>\$(COMMAND) \${FLAGS} -gencode arch=compute_62,code=sm_62 \${OUTPUT_FLAG} \${OUTPUT_PREFIX} \${OUTPUT} \${INPUTS}</pre> In the NVCC Linker, navigate to Properties -> Settings -> Tool Settings -> NVCC Linker -> Expert Setting: <pre>\$(COMMAND) \${FLAGS} -gencode arch=compute_62,code=sm_62 \${OUTPUT_FLAG} \${OUTPUT_PREFIX} \${OUTPUT} \${INPUTS}</pre>

2.0 Implementation Notes

2.1 Pre-release for Evaluation Purposes

This pre-release is provided for evaluation purposes. It is NOT supported for use in production environments.

2.2 Symlinks May be Overwritten by Installation of Third Party Libraries

Installing third party libraries on the target device may overwrite the accelerated library provided by Linux for Tegra.

For example, installing Mesa EGL may create a `/usr/lib/<arch>/libEGL.so` symlink, overwriting the symlink to the implementation library that should be used instead, `/usr/lib/<arch>/tegra-egl/libEGL.so`.

Linux for Tegra installs a boot-time initialization script `/etc/init/nv.conf`, that corrects typical occurrences, such as with OpenGL, EGL, and X11 GLX libraries. This script runs at boot and corrects typical occurrences.

To workaround

- ▶ Reboot after installation of packages that install conflicting library symlinks.

2.3 Prerequisite for video_decode_drm Multimedia Sample

`video_decode_drm` is a new sample in the Multimedia API that demonstrates how to render video stream or UI with the NVIDIA® Tegra® Direct Rendering Manager (DRM). [1843440]

Before running the sample, you must ensure the Ubuntu desktop is disabled.

To disable the Ubuntu desktop

1. Execute the command:

```
$ sudo systemctl stop lightdm.service
```

2. If there are two display outputs, unblank the second inactive display, as follows:

```
$ sudo sh -c 'echo 0 > /sys/class/graphics/fb1/blank'
```

2.4 Jetson TX1 HDMI Display Support

Jetson TX1 does not support 1152x864 display resolution on some HDMI display monitors. When the resolution is changed to 1152x864 the display may become blank after 30 seconds, but it can reset back to the previous resolution after 30 seconds. If the display does not reset back to previous resolution, you must perform a hard reset of the device to restore it to the original display configuration. [200327890]

2.5 Bluetooth Audio and Conformance Support

Bluetooth audio is disabled in this release to ensure that the bluetooth software stack is conformant in the provided configuration. If you enable additional bluetooth audio profiles, product conformance may be impacted [200276904].

For compliance information, consult the *Jetson TX1 OEM Wireless Compliance Guide Application Note DA_08149-001*.

2.6 Display Port and Embedded Display Port Support

Display port is not supported on Jetson TX1. For Jetson TX2, DP/eDP support is identified in the Jetson TX2 Software Feature List in the Kernel I/O Interfaces table of the *Development Guide*.

2.7 OpenCV4Tegra Deprecated

OpenCV Version 3.3.1, built without GPU hardware acceleration, is provided as a convenience to access basic compute functionality. OpenCV continues to include neon and multi-threading optimizations for Jetson.

OpenCV4Tegra Version 2.4.13 is deprecated as of 28.1 release.

2.8 Kernel Pre-configuration

The kernel is pre-configured to enable Docker.

2.9 GStreamer and nvgstcapture Support

Beginning with r28.1, `nvgstcapture` is provided as deprecated. It will be replaced with a basic plugin built around `libargus`. The basic plugin will provide high-level camera control functionality. Any new applications requiring low-level control must be built using `libargus`.

2.10 WiFi Support

The software features includes the following supported WiFi modes:

Mode	Description	Jetson TX1	Jetson TX2
AP	AccessPoint (AP) Infrastructure Mode	Yes	Yes
STA	Station Infrastructure Mode	Yes	Yes

2.11 Wayland Support

Wayland is provided as an early access feature in this release. Full support is targeted for a future release. [200138269]

2.12 HDMI Audio Devices in Audio Settings Application

The HDMI audio output device is not listed for some televisions and monitors including the following:

- ▶ Samsung TV 1080p LA40M81BM/XTL
- ▶ LG Flatron W2363D
- ▶ Samsung UA21ES5000RLXL
- ▶ LG 25UM65-p

The issue is inconsistent and sometimes occurs on subsequent reboots.

To workaround

- ▶ If the HDMI audio output device is not listed in audio settings, restart the pulseaudio daemon by killing the running instance as a normal user with the following command:

```
pulseaudio --kill
```

Or register the systemd pulseaudio service to start the pulseaudio daemon at every boot:

```
systemctl --user enable pulseaudio.service
```

Note: Do not run pulseaudio as a root user.

2.13 New Users Must be Added to Video Group

When adding users to the system you must add them to the `video` group for the Linux desktop to appear and function correctly.

2.14 Symlinks Changed by Mesa Installation

Installation of Mesa EGL may create a `/usr/lib/<arch>/libEGL.so` symlink, overwriting the symlink to the implementation library that must be used instead, `/usr/lib/<arch>/tegra-egl/libEGL.so`. This disrupts any client of EGL, including libraries for EGLStreams.

In this release, the symlink is replaced when the system is rebooted, fixing this issue on reboot. Similar workarounds are applied in previous releases for other libraries such as `libGL` and `libglx`.

2.15 Installing Jetpack on non-English language Host Systems

The Jetpack installer does not correctly detect a 64-bit CPU (and operating system) on the host unless English is the default language.

To workaround

1. On the host system, install or verify installation of, the English language package with the command:

```
sudo apt-get install language-pack-en
```

2. Open `/etc/default/locale` for editing with the command:

```
sudo nano /etc/default/locale
```

3. Comment out the language specification in `/etc/default/locale` and add the following:

```
LANG="en_US.UTF-8"
```

4. Reboot the host.
5. Launch Jetpack with the command:

```
sudo ./JetPack-L4T-3.1-linux-x64.run
```

3.0 Known Issues

These known issues apply to Jetson TX1 and Jetson TX2 devices unless otherwise specified.

3.1 Audio

No audio related issues were noted in this release.

3.2 Boot

Boot related issues noted in this release are as follows.

Issue	Description
200150755 1809395	<p>SATA Conair SSD does not enumerate as expected.</p> <p>The following error message is displayed:</p> <pre>[17.233087] ata1: softreset failed (1st FIS failed) [27.243085] ata1: softreset failed (1st FIS failed) [62.253086] ata1: softreset failed (1st FIS failed) [62.257959] ata1: limiting SATA link speed to 1.5 Gbps [67.463156] xhci-tegra 3530000.xhci: can't find firmware [67.473082] ata1: softreset failed (device not ready) [67.478133] ata1: reset failed, giving up</pre> <p>To workaround</p> <p>Conair SATA drives must be used as storage devices and not boot devices.</p>
N/A	<p>Using NFS boot, the 16.04 Ubuntu desktop does not function correctly on the target.</p> <p>To workaround</p> <ul style="list-style-type: none"> At the target console, execute the command: <code>sudo apt-get install --reinstall ubuntu-desktop unity compiz-core upstart</code>
200309057	<p>Cloning the root file system on eMMC using the following command takes significantly longer to complete on Jetson TX1 than on Jetson TX2.</p> <pre>sudo ./flash.sh -r -k APP -G app_part.img jetson-tx1 mmcblk0p1</pre>

3.3 Camera

Camera related issues noted in this release are as follows.

Issue	Description
1959620 200304835	<p>When running the <code>argus_camera</code> application, a memory leak of ~30 bytes per second is present. This issue is present in the open-source <code>glib</code> library used by the camera application, not within the camera application or camera library.</p> <p>NVIDIA is working with the open source community to address this issue. In the interim, use the following patch:</p> <ul style="list-style-type: none"> • Navigate to line #148 for the <code>poll_monitor</code> timeout in the GPOL file <code>monitor</code> file at: https://github.com/GNOME/glib/blob/master/gio/gpollfilemonitor.c#L148 <code>poll_monitor->timeout = FALSE;</code> • Replace that line with the following if statement: <pre>if (poll_monitor->timeout) { g_source_destroy (poll_monitor->timeout); g_source_unref (poll_monitor->timeout); poll_monitor->timeout = NULL; }</pre>
200247681	<p>Systems using lens shading correction and dynamic falloff tuning produce an inconsistent response to exposure bracketing due to a rate limitation on the lens shading adaptation.</p> <p>This issue does not affect basic use of exposure bias or systems that do not use lens shading correction.</p>
200301535	<p>Initially, a transient half-black frame is generated when switching between normal and WDR sensor modes with IMX-185.</p> <p>To workaround: Drop the first frame after switching modes.</p>
200297610	<p>When launching the <code>argus_camera</code> application with Piecewise Linear WDR sensor mode and changing the AWB mode, the preview hangs. Specifically, this occurs when changing from Auto to other modes such as Incandescent or fluorescent. A fix for this issue is targeted for a subsequent release.</p>
200244333	<p>Launching <code>argus_camera</code> with <code>--awblock=on</code> causes a black preview and capture image. This is due to an internal color correction matrix that is not populated until after the first frame is run with AWB.</p> <p>To workaround: For applications that require fixed gains, use the white balance gain controls instead without requesting lock.</p>
200225662	<p>Frames drops 1/ Hr for H264/H65 Video Recording.</p>

3.4 Communication

Communication related issues noted in this release are as follows.

Issue	Description
200327384	<p>WiFi does not function as expected when configured to IBSS mode and encryption is enabled.</p> <p>To workaround:</p> <ul style="list-style-type: none"> Use Open mode.
1763058	Bluetooth scanning causes Audio corruption in A2DP playback.

3.5 CUDA Samples

CUDA related issues noted in this release are as follows.

Issue	Description
200369242	<p>In the CUDA toolkit, Native compilation of the <code>cdpLUdecomposition</code> or <code>simpleDevLibCUBLAS</code> CUDA samples using default make command fails due to unsupported compute architecture "SM_35" on CUDA Version 9. <code>sm_35</code> is not supported for this mobile release, thus the binaries for that architecture are not included.</p> <p>To build the sample for the supported architectures and override the SMs:</p> <ul style="list-style-type: none"> Enter: <pre>make SMS="53 62"</pre>
200370228	<p>GL ES CUDA samples are not compiled due to missing header files. There are ways to workaround this issue, depending on your use of Jetpack.</p> <p>Option #1: To workaround when installing with Jetpack</p> <ul style="list-style-type: none"> Select to install the MM API component. <p>This selection allows you to successfully compile the CUDA samples.</p> <p>Option #2: To workaround after installing without Jetpack</p> <ul style="list-style-type: none"> Copy the EGL, GLES2, GLES3 and KHR headers from the <code>~/tegra_multimedia_api/include</code> folders to <code>/usr/include</code>. Do not copy GL headers.

3.6 Display

Display related issues noted in this release are as follows.

Issue	Description
200368736	<p>For certain models of HDMI displays that support 4096x2160 resolution, the output on the display should be stretched wider than the visible area of the screen.</p> <p>To resolve this issue, use xrandr or the display configuration user interface to select a 3840x2160 or 1080p resolution instead.</p>
200369220	<p>The default resolution for video playback on the display overlay (when not using X11) is set to 720x480p. If you use overlay video playback without setting to a matching resolution issues may arise. For example, to perform playback 4k overlay stream, the display resolution must be set to 1080p or higher.</p> <p>Before changing the display mode, ensure lightdm is stopped.</p> <ol style="list-style-type: none"> 1. To blank the display, execute the command: <code>"echo 4 >/sys/class/graphics/fb0/blank"</code> 2. To get a valid mode from the mode list of the monitor, execute the command: <code>"cat /sys/class/graphics/fb0/modes".</code> 3. To set the desired mode, execute the command: <code>"echo "mode from modelist" > /sys/class/graphics/fb0/mode"</code> For example: <code>echo "D:1920x1080p-60" > /sys/class/graphics/fb0/mode</code> 4. To Unblank the display: <code>"echo 0 > /sys/class/graphics/fb0/blank"</code>

3.7 Kernel

Kernel related issues noted in this release are as follows.

Issue	Description
1978395	<p>When the L4T kernel is compiled from source, some generated files are written outside the expected output directory.</p> <ul style="list-style-type: none"> • When the kernel is compiled without using the O= command-line option, all generated files are written within the various kernel source trees. Generated files are created in the same directory as their respective source files. This case works as expected. • When the kernel is compiled using the O= command-line option, some generated files are written outside the specified directory. These generated files are created within a sibling directory of the directory specified in the O= command-line option, for example: <code>\$OUT/../../nvidia</code> or <code>\$OUT/../../nvgpu</code> rather than <code>\$OUT</code> If those path names exist but are not directories, or exist as a directory but contain files unrelated to the kernel build process, this can interfere with the kernel build process. The following error message is one possible symptom. <pre>mkdir: cannot create directory 'drivers/video/tegra/../../../../../display': Not a directory</pre>

	<p>To workaround, perform one of the following options:</p> <ul style="list-style-type: none"> Do not use the O= command-line option. Select an output directory with a parent directory that does not contain any files. For example, assuming that \$HOME/kernel-build does not exist or is an empty directory, specify O=\$HOME/kernel-build/kernel rather than \$HOME/kernel-build.
200328365	<p>Suspend-to-Idle state is not supported in Tegra, for example:</p> <pre>#echo freeze > /sys/power/state</pre> <p>Use Suspend to RAM instead, for example:</p> <pre>echo mem > sys/power/state</pre> <p>Ubuntu may enter Suspend-to-Idle state when:</p> <ol style="list-style-type: none"> 5. Selecting system menu >suspend. 6. Changing power button default action to suspend and then pressing power button to suspend the device. 7. If autosuspend, when device is inactive, is enabled from System settings > Power > Suspend when inactive for. <p>To workaround and prevent Ubuntu from entering Suspend-to-Idle state:</p> <ul style="list-style-type: none"> Add the following configuration to the /etc/systemd/sleep.conf file: <pre>[Sleep] SuspendState=mem</pre>

3.8 Multimedia

No Multimedia related issues were noted in this release.

3.9 General System Usability

General system usability related issues noted in this release are as follows.

Issue	Description
200330275	<p>The Jetson TX1 device does not wake up from suspend state with USB peripherals connected to micro USB port using OTG cable (Specific to TX1).</p> <p>To workaround:</p> <ul style="list-style-type: none"> Resume device from suspend state using Power on key or use USB peripherals connected to USB type A port.
200307657	<p>Red screen is observed while playing H264/H265 4K video with overlaysink.</p> <p>NVIDIA recommends that you do NOT run X11 with other display clients such as overlaysink, and libdrm applications simultaneously.</p>
200270895	<p>User may be unable to flash the Tegra developer kit using Linux host that runs distribution where the loop device does not exist by default.</p>
200196882	<p>Logging in to GNOME desktop (gnome-shell) is unsuccessful, accompanied by display corruption.</p>

	NVIDIA recommends using the Unity desktop enabled by default with the Development Kit.
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4.0 About Earlier Releases

20 Jul 2017 28.1 Release

Top Issues Fixed Since Last Release

These fixed issues apply to Jetson TX1 and Jetson TX2 devices unless otherwise specified.

Camera

Camera related issues resolved in this release are as follows.

Issue	Description
200191194	Error messages are displayed when running (successfully) the camera_recording sample application.

Communication

Communication related issues resolved in this release are as follows.

Issue	Description
200308543	<p>The CAN bus driver module auto loading is disabled in this release. To enable and use CAN bus:</p> <ul style="list-style-type: none"> Manually load the mttcan driver with the command: \$ sudo modprobe mttcan <p>To automatically have the CAN bus driver module enabled:</p> <ul style="list-style-type: none"> Comment the "blacklist mttcan" with the command: \$ cat /etc/modprobe.d/blacklist-mttcan.conf #blacklist mttcan
200276812	Unable to hit peak tput for Ch36_VHT80_TCP-UL and Ch36_VHT80_UDP-UL as expected.
1855363	The bcmhd module cannot be unloaded and reloaded.

Graphics

Graphics related issues resolved in this release are as follows.

Issue	Description
200304360	The Ubuntu home screen becomes blank after changing the resolution from 1440x576 to any other resolution.
200186978	When X server is terminated (e.g., service lightdm stop), non X11 application display is unsuccessful.

Kernel

Kernel related issues resolved in this release are as follows.

Issue	Description
1878690	Shutdown/reboot does not work with realtek Ethernet PCI card.

Multimedia

Multimedia related issues resolved in this release are as follows.

Issue	Description
200277469	The OpenCV4Tegra provided in release 27.1 is not able to compile openCV programs and applications. This is resolved in 28.1 release.

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